PCG-K12FP/K12P/K13/K13F/K13Q/K14/K15/K15F/K17
PCG-K115B/K115M/K115S/K115Z/K195BP/K195HP
PCG-K64/K64S/K66P/K66SP

SERVICE MANUAL

Ver. 9 2005F

Revision History

Area	Model	Lineup	
American	US Canadian	PCG-K12P PCG-K13 PCG-K14 PCG-K15 PCG-K17	
	Latin	PCG-K12FP PCG-K13F	⚠1 [MA]
		PCG-K15F	⚠1 [MA]
	Quebec	PCG-K13Q	⚠1 [MA]
European	AEP/UK	PCG-K115B PCG-K115M PCG-K115S PCG-K115Z PCG-K195BP PCG-K195HP	
Asian/Oceania/ South Africa	International	PCG-K64 PCG-K66P	
	Thai	PCG-K64S PCG-K66SP	⚠3 [MA]

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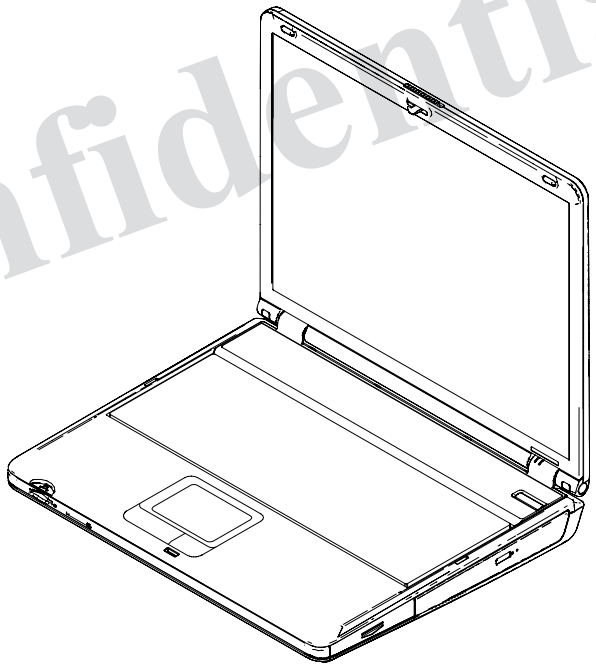

WiFi CERTIFIED MEMORY STICK S400

VAIO

· Design and specifications are subject to change without notice.

· 本機の仕様および外観は、改良のため予告なく変更することがありますが、ご了承ください。

NOTEBOOK COMPUTER

SONY

9-876-365-09

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All other names of systems, products and servicesin this manual are trademarks or registered trademarks of their respective owners. In this manual, the (TM) or (R) mark are not specified.

Caution Markings for Lithium/Ion Battery - The following or similar texts shall be provided on battery pack of equipment or in both the operating and the service instructions.

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

CAUTION: The battery pack used in this device may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 100°C (212°F) or incinerate. Dispose of used battery promptly. Keep away from children.

CAUTION: Changing the back up battery.

- Overcharging, short circuiting, reverse charging, multilati on or incineration of the cells must be avoided to prevent one or more of the following occurrences; release of toxic materials, release of hydrogen and/or oxygen gas, rise in surface temperature.
- If a cell has leaked or vented, it should be replaced immediately while avoiding to touch it without any protection.

Service and Inspection Precautions

1. Obey precautionary markings and instructions

Labels and stamps on the cabinet, chassis, and components identify are as requiring special precautions. Be sure to observe these precautions, as well as all precautions listed in the operating manual and other associated documents.

2. Use designated parts only

The set's components possess important safety characteristics, such as noncombustibility and the ability to tolerate large voltages. Be sure that replacement parts possess the same safety characteristics as the originals. Also remember that the ⚠ mark, which appears in circuit diagrams and parts lists, denotes components that have particularly important safety functions; be extra sure to use only the designated components.

3. Always follow the original designwhen mounting parts and routing wires

The original layout includes various safety features, such as inclusion of insulating materials (tubes and tape) and the mounting of parts above the printer board. In addition, internal wiring has been routed and clamped so as to keep it away from hot or high-voltage parts. When mounting parts or routing wires, therefore, be sure toduplicate the original layout.

4. Inspect after completing service

After servicing, inspect to make sure that all screws, components, and wiring have been returned to their original condition. Also check the area around the repair location to ensure that repair work has caused no damage, and confirm safety.

5. When replacing chip components...

Never reuse components. Also remember that the negative side of tantalum capacitors is easily damaged by heat.

6. When handling flexible print boards...

- The temperature of the soldering-iron tip should be about 270°C.
- Do not apply the tip more than three times to the same pattern.
- Handle patterns with care; never apply force.

Caution: Remember that hard disk drives areeasily damaged by vibration. Always handlewith care.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANSCE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

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History of the changes is shown as the "Revision History" at the end of this data.

変更履歴は,“Revision History”として,本データ末に記載してあります。

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CHAPTER 1.
SPECIFICATIONS

1-1. Specifications

	AM								
	PCG-K17	PCG-K15	PCG-K12P	PCG-K13	PCG-K14	PCG-K15F	PCG-K13F	PCG-K12FP	PCG-K13Q
CPU	P4-3.06GHz	P4-2.8GHz	P4-2.8GHz	P4-2.8GHz	P4-2.8GHz	P4-2.8GHz	Cel-2.8GHz	P4-2.8GHz	P4-2.8GHz
Graphic	RADEON IGP 345M	RADEON IGP 345M	RADEON IGP 345M	RADEON IGP 345M	RADEON IGP 345M	RADEON IGP 345M	RADEON IGP 345M	RADEON IGP 346M	RADEON IGP 345M
LCD	15"XGA	15"XGA	15"XGA	15"XGA	15"XGA	15"XGA	15"XGA	15"XGA	15"XGA
HDD	80GB	60GB	40GB	40GB	40GB	40GB	40GB	40GB	40GB
MEMORY1	256MB×1	256MB×1	256MB×1	256MB×1	256MB×1	256MB×1	256MB×1	256MB×1	256MB×1
[STANDARD/MAX]	512MB/	512MB/	512MB/	512MB/	512MB/	512MB/	512MB/	512MB/	512MB/
OPT-DRIVE	DVD+/-RW	DVD+/-RW	CD-RW/DVD-ROM	CD-RW/DVD-ROM	DVD+/-RW	DVD+/-RW	CD-RW/DVD-ROM	CD-RW/DVD-ROM	CD-RW/DVD-ROM
AC adaptor	PCGA-AC19V9	PCGA-AC19V7	PCGA-AC19V7	PCGA-AC19V7	PCGA-AC19V7	PCGA-AC19V7	PCGA-AC19V7	PCGA-AC19V7	PCGA-AC19V7
Battery	PCGA-BP2NY	PCGA-BP2NX	PCGA-BP2NX	PCGA-BP2NX	PCGA-BP2NX	PCGA-BP2NX	PCGA-BP2NX	PCGA-BP2NX	PCGA-BP2NX
OS	WinXP Home	WinXP Home	WinXP Pro	WinXP Home	WinXP Home	WinXP Home	WinXP Home	WinXP Pro	WinXP Home

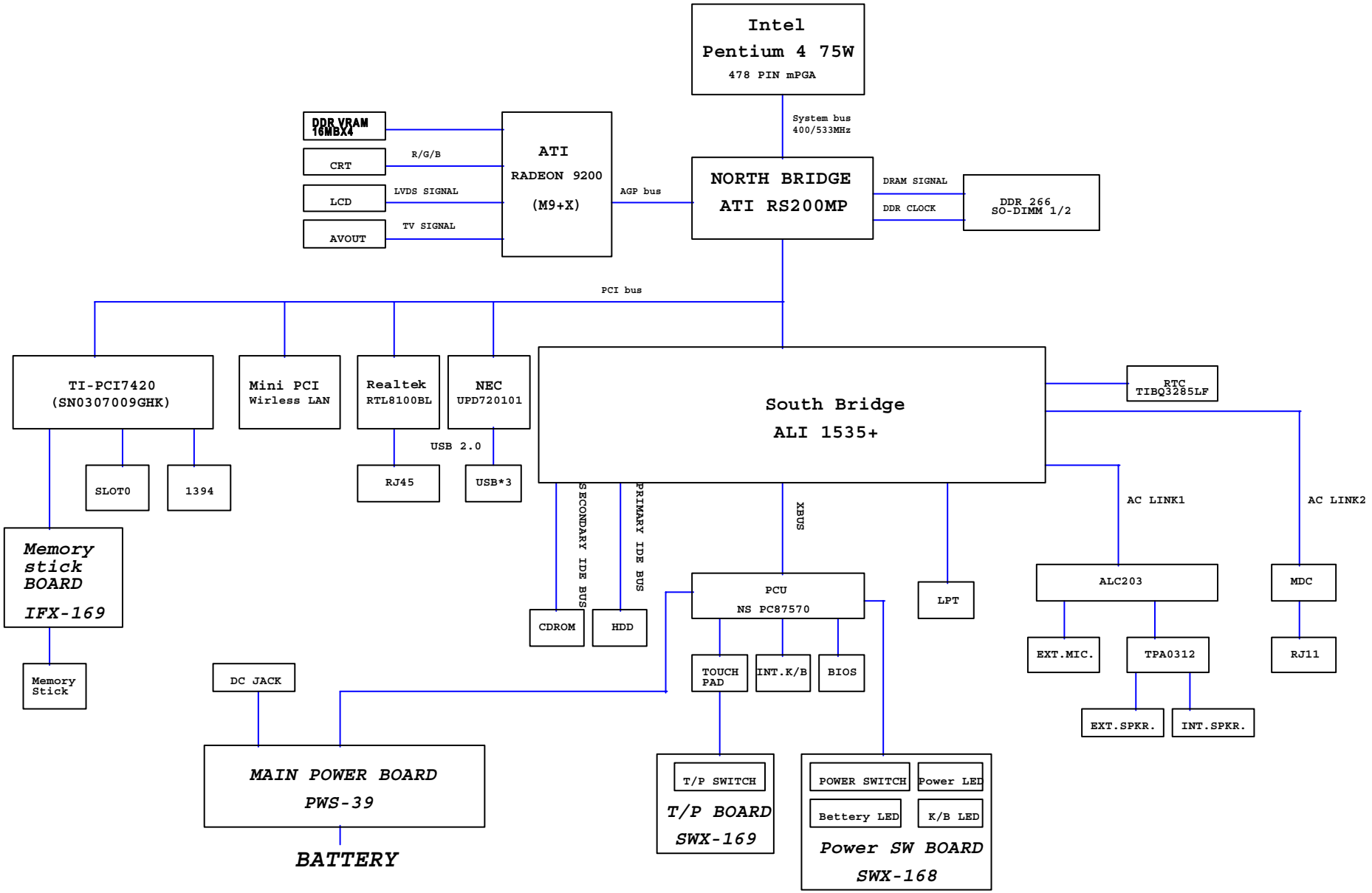
△1 [MA] △1 [MA] △1 [MA]

	EU						AO			
	PCG-K115Z	PCG-K115S	PCG-K115M	PCG-K195BP	PCG-K115B	PCG-K195HP	PCG-K66P	PCG-K64	PCG-K66SP	PCG-K64S
CPU	P4-3.06GHz	P4-2.8GHz	P4-2.8GHz	Cel-2.8GHz	Cel-2.8GHz	P4-2.8GHz	P4-2.8GHz	Cel-2.8GHz	P4-2.8GHz	Cel-2.8GHz
Graphic	RADEON 9200(64MB)	RADEON 9200(64MB)	RADEON 9200(64MB)	RADEON IGP 345M	RADEON IGP 345M	RADEON IGP 345M	RADEON 9200(64MB)	RADEON IGP 345M	RADEON 9200(64MB)	RADEON IGP 345M
LCD	15"XGA	15"XGA	15"XGA	15"XGA	15"XGA	15"XGA	15"XGA	15"XGA	15"XGA	15"XGA
HDD	60GB	60GB	40GB	40GB	40GB	40GB	60GB	40GB	60GB	40GB
MEMORY1	256MB×1	256MB×1	256MB×1	256MB×1	256MB×1	256MB×1	256MB×1	256MB×1	256MB×1	256MB×1
[STANDARD/MAX]	512MB/	512MB/	512MB/	512MB/	512MB/	512MB/	512MB/	256MB/	512MB/	256MB/
OPT-DRIVE	DVD+/-RW	DVD+/-RW	CD-RW/DVD-ROM	CD-RW/DVD-ROM	CD-RW/DVD-ROM	CD-RW/DVD-ROM	DVD+/-RW	CD-RW/DVD-ROM	DVD+/-RW	CD-RW/DVD-ROM
AC adaptor	PCGA-AC19V9	PCGA-AC19V7	PCGA-AC19V7	PCGA-AC19V7	PCGA-AC19V7	PCGA-AC19V7	PCGA-AC19V7	PCGA-AC19V7	PCGA-AC19V7	PCGA-AC19V7
Battery	PCGA-BP2NY	PCGA-BP2NX	PCGA-BP2NX	PCGA-BP2NX	PCGA-BP2NX	PCGA-BP2NX	PCGA-BP2NX	PCGA-BP2NX	PCGA-BP2NX	PCGA-BP2NX
OS	WinXP Home	WinXP Home	WinXP Home	WinXP Pro	WinXP Home	WinXP Pro	WinXP Pro	WinXP Home	WinXP Pro	WinXP Home

△3 [MA]

・The trademarks of registered trademarks of above table, refer to page 2.
・本表中の商標・登録商標については，2ページをご参照ください。

CHAPTER 2.
BLOCK DIAGRAM



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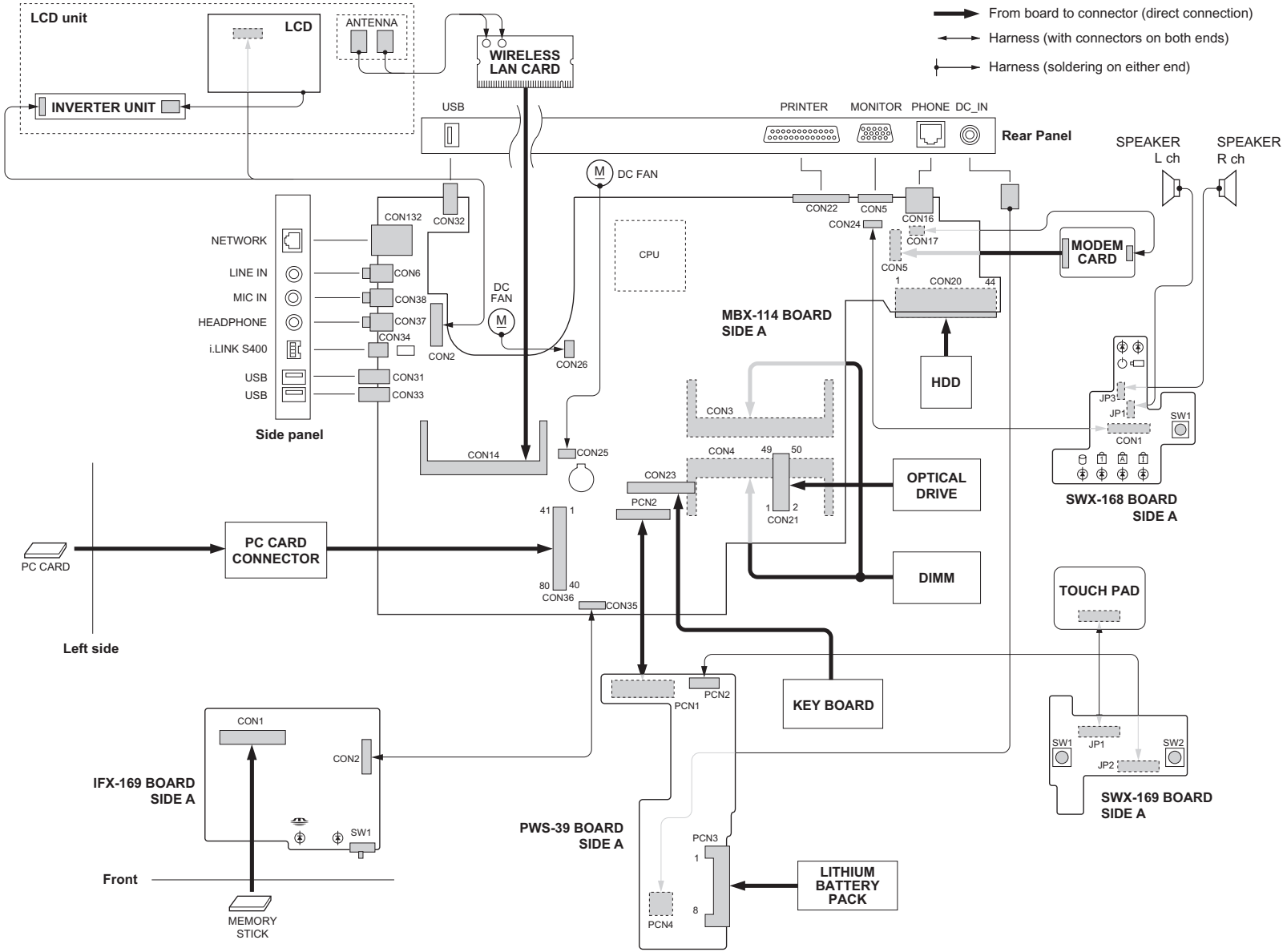
CHAPTER 3.
FRAME HARNESS DIAGRAM



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PCG-K12FP/K12P/K13/K13F/K13Q/K14/K15/K15F/K17 (AM)
PCG-K115B/K115M/K115S/K115Z/K195BP/K195HP (EU)
PCG-K64/K64S/K66P/K66SP (AO)

CHAPTER 4.

EXPLODED VIEWS AND PARTS LIST

- The parts list is compiled by blocks of a palmrest and bottom etc. The sections of the parts list are different depending on the model. Please refer to list of contents shown in the below.

- 分解図と部品表は，パームレスト，ボトムなどのブロックごとに分かれています。機種によって部品表のセクションが異なりますので，詳細は右下の一覧表を参照してください。

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Accessory
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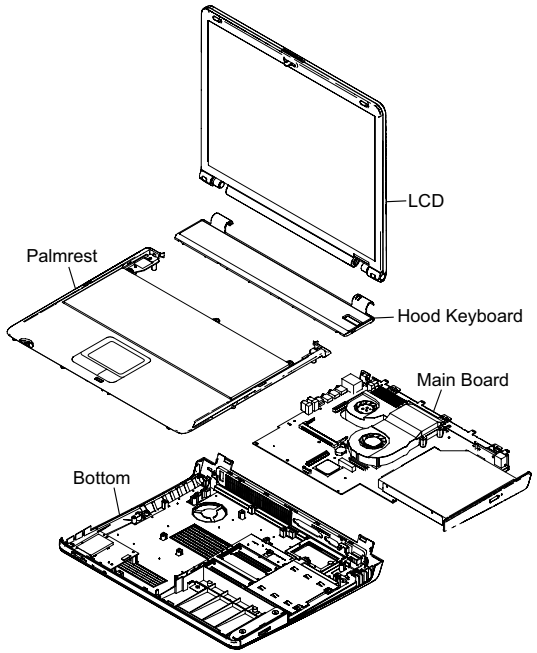
DIP Switch ..... 4-11 ⚠6 [ADD]



⚠4 [COR]
L-1

			Palmrest	Main Board	Bottom	Hood Keyboard	LCD	Accessory
	AM	K17	P-1	M-1	B-1	H-1	~~L-4~~ ←	A-1
		K15	P-1	M-1	B-1	H-1	~~L-1~~ ←	A-1
		K12P	P-1	M-1	B-1	H-1	L-2	A-1
		K13	P-1	M-1	B-1	H-1	L-2	A-1
		K14	P-1	M-1	B-1	H-1	L-2	A-1
⚠1 [MA]		K15F	P-1	M-1	B-1	H-1	L-1	A-1
		K13F	P-1	M-1	B-1	H-1	L-1	A-1
⚠1 [MA]		K12FP	P-1	M-1	B-1	H-1	L-1	A-1
⚠1 [MA]		K13Q	P-1	M-1	B-1	H-1	L-1	A-1
	EU	K115Z	P-1	M-1	B-1	H-1	L-1	A-1
		K115S	P-1	M-1	B-1	H-1	L-1	A-1
		K115M	P-1	M-1	B-1	H-1	L-1	A-1
		K195BP	P-1	M-1	B-1	H-1	L-2	A-1
		K115B	P-1	M-1	B-1	H-1	L-2	A-1
		K195HP	P-1	M-1	B-1	H-1	L-3	A-1
	AO	K66P	P-1	M-1	B-1	H-1	L-1	A-1
		K64	P-1	M-1	B-1	H-1	L-3	A-1
⚠3 [MA]		K66SP	P-1	M-1	B-1	H-1	L-1	A-1
		K64S	P-1	M-1	B-1	H-1	L-3	A-1

L-4
⚠4 [COR]

NOTE:

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- When two or more parts are shown, use the part described first as the main part.
- The parts marked " $ " are the High Value Modules (HVM).
- The parts marked " # " are the parts on which barcode label is attached. For the barcode label, refer to CHAPTER 5.
- The parts marked "&" are the "Customer Replacable Parts (CRP)" that can be replaced by Field Customer Support. Especially the parts with the <&> mark require the special attention to use them. Here fore, check first whether the desired part is one of the targetted parts of the Customer Replaceable Parts (CRP), or the non-targetted parts by referring to the exploded view.

【使用上の注意】

- *印の部品は常備在庫しておりません。
- 図面番号のない部品は供給しません。
- 併記部品の場合，上部記載部品をメイン部品として使用してください。
- 部品名称の前に$印のついた部品は，High Value Module（HVM）です。
- 商品名称の前に#印のついた部品は，バーコードラベル貼付部品です。
  バーコードラベルについてはCHAPTER 5を参照してください。
- 部品名称の前に&印のついた部品は，お客様窓口などでも交換可能なCustomer Replacable Part（CRP）です。
  特に<&>のついた部品は，使い分けが必要な部品ですので，分解図でCustomer Replacable Parts対象部品か，対象外部品かを必ず御確認ください。

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

⚠印の部品，または⚠印付きの点線で囲まれた部品は，安全性を維持するために重要な部品です。従って交換時は，必ず指定の部品を使用して下さい。

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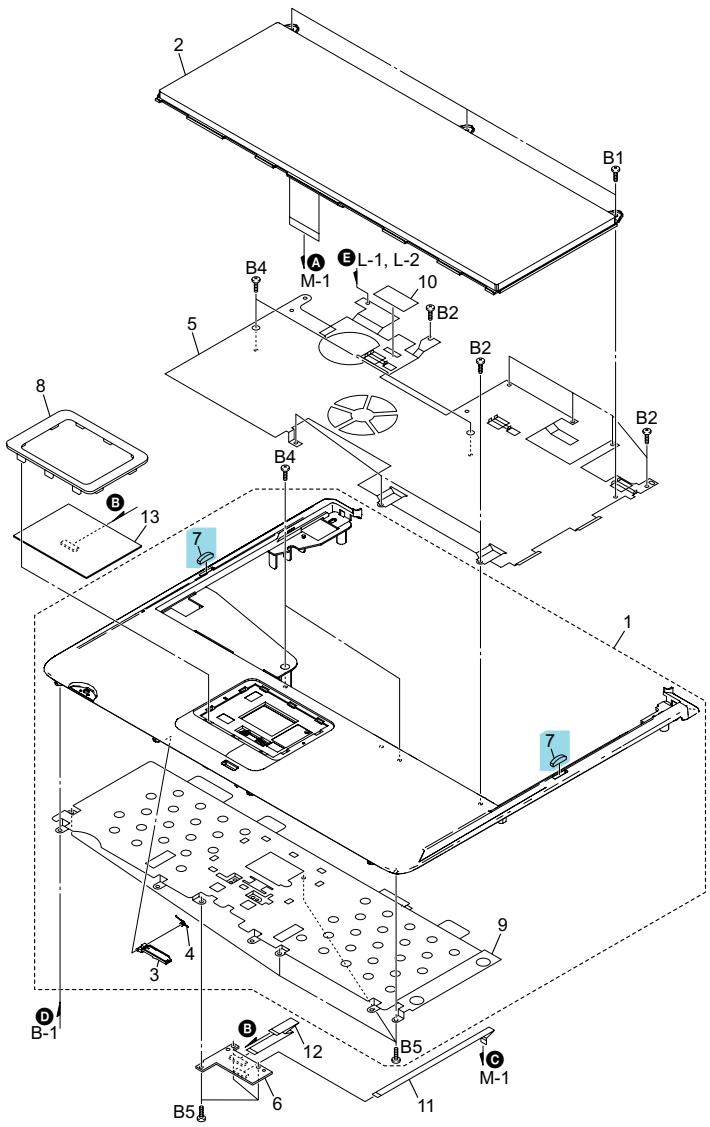
PCG-K12FP/K12P/K13/K13F/K13Q/K14/K15/K15F/K17 (AM)
PCG-K115B/K115M/K115S/K115Z/K195BP/K195HP (EU)
PCG-K64/K64S/K66P/K66SP (AO)

P-1. Palmrest



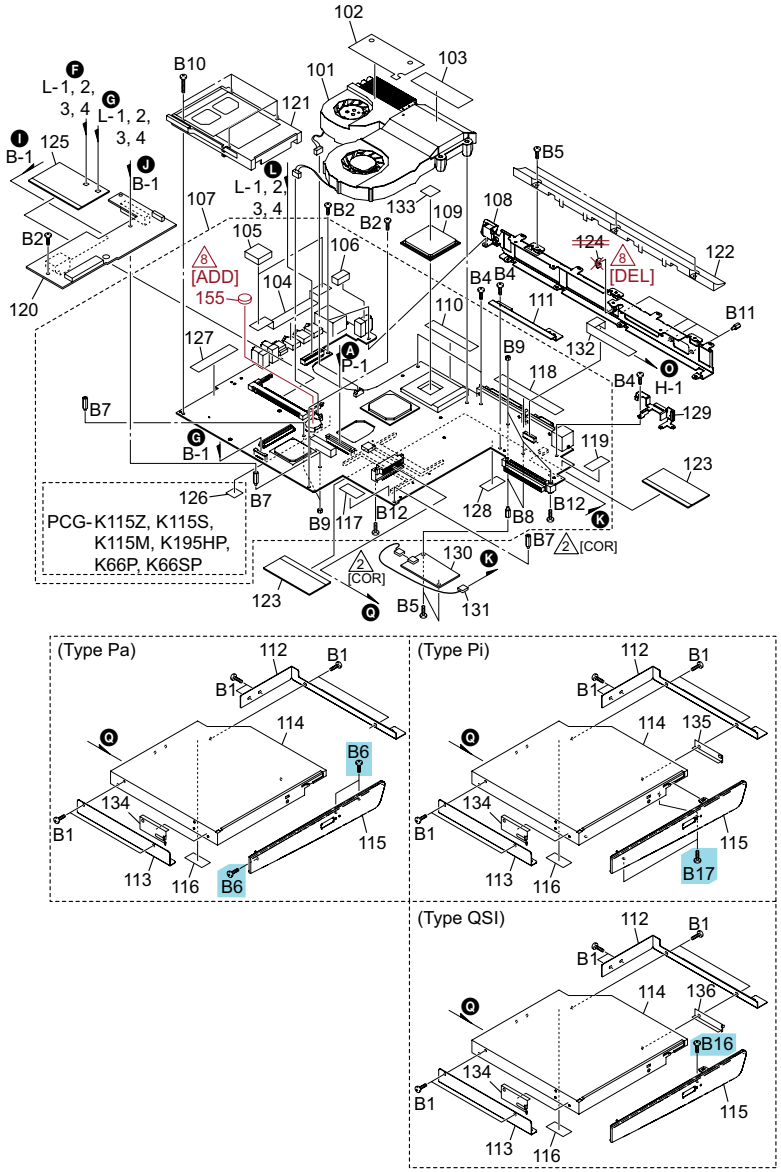
Ref. No.	Part No.		Description
1	X-4626-726-1		HOUSING PALMREST ASSY
3	4-681-301-01		LATCH DETECTOR
4	4-676-233-01		SPRING LATCH DETECTOR
* 5	4-681-336-01		BRACKET KEYBOARD
6	A-8068-709-A	$	COMPLETE PWB SWX-169
7	4-681-295-01	&	CUSHION PALMREST
8	4-681-296-01		ESCUTCHEON TOUCHPAD
9	X-2021-524-1		BRACKET TOUCHPAD ASSY
10	2-022-446-01		MYLAR BRACKET K/B
11	1-829-138-11		FFC (T/P TO CHARGE)
12	1-829-140-11		FFC (TO T/P)
13	1-796-914-11		PAD, TOUCH
B1	4-216-272-01		SCREW (M2), +
B2	4-641-726-12		SCREW (M2), SPECIAL HEAD
B4	4-641-726-41		SCREW (M2), SPECIAL HEAD
B5	4-665-205-01		SPECIAL FLAT HEAD (EG GRIP), M2

Ref. No.	Part No.	Description	AM								EU						AO			
			K17	K15	K12P	K13	K14	K15F	K13F	K12FP	K13Q	K115Z	K115S	K115M	K195BP	K115B	K195HP	K66P	K64	K66SP	K64S
2	1-478-597-11	KEYBOARD UNIT(US)	●	●	●	●	●											●	●		
	1-478-597-31	KEYBOARD UNIT(TH)																		●	●
	1-478-598-11	(UK,Dutch)...KEYBOARD UNIT(GB)										●	●	●	●	●	●				
	1-478-598-21	(German,Austrian)...KEYBOARD UNIT(DE)										●	●	●	●	●	●				
	1-478-598-31	(Swiss)...KEYBOARD UNIT(CH)										●	●	●	●	●	●				
	1-478-598-41	(French,Belgium)...KEYBOARD UNIT(FR)										●	●	●	●	●	●				
	1-478-598-51	(Italian)...KEYBOARD UNIT(IT)										●	●	●	●	●	●				
	1-478-598-61	(Spainsh)...KEYBOARD UNIT(ES)										●	●	●	●	●	●				
	1-478-598-71	KEYBOARD UNIT(LA)						●	●	●											
	1-478-598-81	KEYBOARD UNIT(CA)									●										
								⚠1 [MA]		⚠1 [MA]	⚠1 [MA]									⚠2 [MA]	

- This parts list contains two different types of parts.
  The first type is the parts that are common to all models.
  The other type is the parts that are different depending on each model.

- この部品表は，機種共通の部品と，機種によって使い分けが必要な部品に分かれています。

M-1.Main Board



Ref. No.	Part No.		Description
101	A-1055-864-A	$	COOLING UNIT (S)
102	2-022-437-01		MYLAR COOLING LEFT
103	2-022-438-01		MYLAR COOLING RIGHT
104	2-022-440-01		CUPPER TAPE
105	2-022-439-01		GASKET LAN
106	2-022-441-01		GASKET USB REAR
108	X-4626-731-1		I/O BRACKET ASSY
110	2-022-442-01		CUSHION COOLING BTM
* 111	4-674-030-01		GUIDE DRIVE
* 112	4-674-028-01		BRACKET DRIVE R
* 113	4-674-029-01		BRACKET (DRIVE) (L)
116	4-677-647-01		INSULATOR DRIVE
117	-		KAPTON TAPE
118	-		KAPTON TAPE
119	-		KAPTON TAPE
120	A-8068-707-A	$	COMPLETE PWB PWS-39
121	1-818-420-11		CONNECTOR, PC CARD
122	4-681-305-01		COVER HOOD
8 [DEL]	~~124~~		~~PLATE GND USB~~
127	-		KAPTON TAPE
128	-		KAPTON TAPE
* 129	4-681-361-01		PLATE DC
130	1-761-606-14		CARD, MODEM
131	1-962-643-11		HARNESS 2PIN
132	1-829-139-11		FFC (POWER SWITCH)
133	4-668-785-02		THERMAL SHEET CPU
134	4-670-244-01		SPRING DRIVE R
8 [ADD]	155		SECONDARY, BATTERY LITHIUM
B1	4-216-272-01		SCREW (M2), +
B2	4-641-726-12		SCREW (M2), SPECIAL HEAD
B4	4-641-726-41		SCREW (M2), SPECIAL HEAD
B5	4-665-205-01		SPECIAL FLAT HEAD (EG GRIP), M2
B6	4-645-177-01	&	SCREW (M1.7X3.5)
B7	4-673-121-01		SCREW PWS
B8	4-651-989-41		SPACER (MBX)
B9	7-622-205-05		NUT M2 TYPE2
B10	4-644-637-91		GRIP, M2 EG
B11	4-635-966-21		SCEW (HEX)
B12	7-621-772-50		SCREW +B 2X10
B16	4-679-805-01	&	SCREW (B1.7), TAPPING
B17	4-679-805-11	&	SCREW (B1.7), TAPPING

				AM							EU					AO			
Ref. No.	Part No.		Description	K17	K15	K12P	K13	K14	K15F	K13F	K12FP	K13Q	K115Z	K115S	K115M	K195BP	K115B	K195HP	K66P	K64	K66SP	K64S
107	A-8068-711-A	$ #	COMPLETE PWB MBX-114 EXT JE21										●	●	●			●	●		●	
	A-8068-708-A	$ #	COMPLETE PWB MBX-114 INT JE21	●	●	●	●	●	●	●	●	●				●	●	●		●		●
109	6-803-979-01		IC RK80532GE072512SL725															●				
	6-705-841-01		IC RK80532GE083512SL726	●									●									
	6-704-665-01		IC RK80532PE072512SL6PF		●	●	●	●	●		●	●		●	●				●	●	●	
	6-705-769-01		IC RK80532RC072128SL77T							●					●	●	●			●		●
114	1-796-821-11	$ #	COMBO DRIVE (SBW-242U) (QSI)			●	●			●	●	●			●	●	●	●		●		●
	1-796-834-11	$ #	W-DVD (DVR-K12D) (Pi)	●	●			●	●												●	
	1-796-904-11	$ #	DVD+-RW (UJ-820) (Pa)										●	●					●			
115	X-4626-610-1		ASSY PAN BEZEL (Pa)										●	●					●			
	X-4626-607-1		ASSY PIO DVD-RW BEZEL (Pi)	●	●			●	●												●	
	X-4626-608-1		ASSY QSI DVD-RW BEZEL (QSI)			●	●			●	●	●			●	●	●	●		●		●
123	6-600-158-01		IC HYS64D32020GDL-7-B	●	●	●	●	●	●	●	●	●	●	●	●	●	●					
	6-705-094-01		IC M470L3224FT0-CB3																●	●	●	●
125	1-761-884-21		CARD, WIRELESS LAN										●	●	●			●	●		●	
	1-761-884-31		CARD, WIRELESS LAN	●	●	●	●	●	●	●	●	●										
126	2-022-443-01		VGA HEATSINK										●	●	●			●	●		●	
135	4-682-593-01		SPRING DRIVE R	●	●			●	●												●	
136	4-677-259-01		SPRING DRIVE L			●	●			●	●	●			●	●	●	●		●		●

- This parts list contains two different types of parts.
  The first type is the parts that are common to all models.
  The other type is the parts that are different depending on each model.

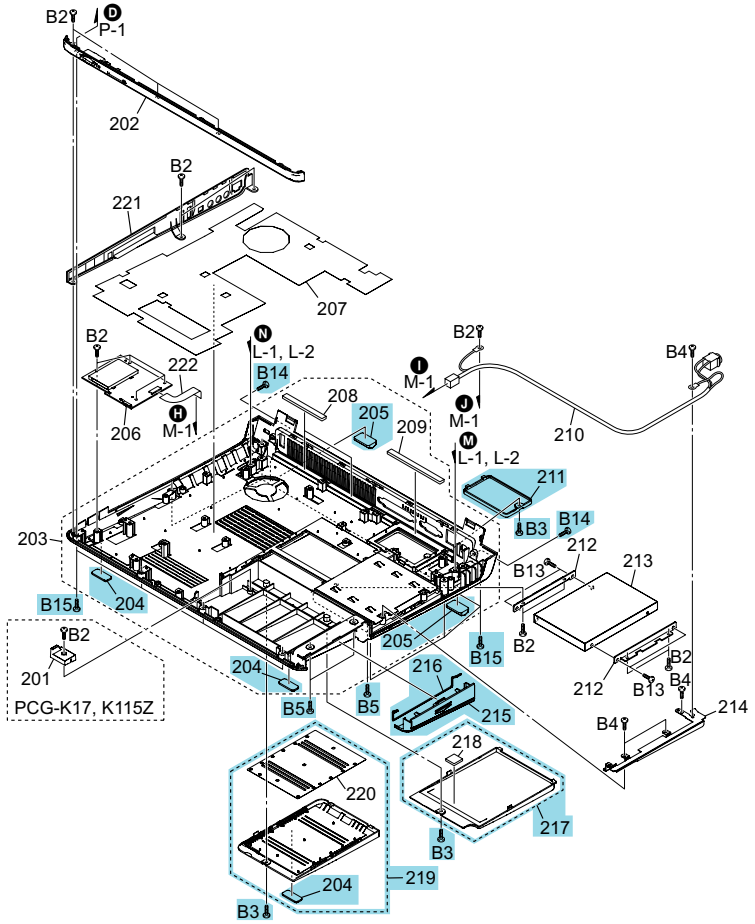
1 [MA] 1 [MA] 1 [MA] 7 [COR] 5 [COR] 3 [MA]

- この部品表は，機種共通の部品と，機種によって使い分けが必要な部品に分かれています。

- When change the CPU (ref. 209), refer to "Replacing the CPU" in CHAPTER 5.
- CPU (Ref. 209) を交換する際には，CHAPTER 5の「Replacing the CPU」をご参照下さい。

Confidential

B-1. Bottom



	Ref. No.	Part No.			Description
	203	X-4626-606-1			HOUSING BOTTOM ASSY JE21
	204	4-681-313-01		&	FOOT
	205	4-674-041-01		&	FOOT REAR
⚠ [COR]	206	A-8068-710-A	$		COMPLETE PWB IFX-169 (WL)
	207	4-681-340-01			HEATSINK BOTTOM INSULATION
	208	2-022-444-01			GASKET HOUSING BTM1
	209	2-022-445-01			GASKET HOUSING BTM2
	210	1-962-775-11			HARNESS (WITH DC JACK, 2P)
	211	4-681-314-01		&	COVER MODEM
*	212	4-674-033-01			BRACKET HDD
*	214	4-682-482-01			BRACKET HOLDER PW CABLE
	215	4-681-318-01		&	DOOR BATTERY
	216	4-681-337-01		&	BATTERY DOOR LINK
	217	X-2021-163-1		&	COVER HDD ASSY
	218	2-022-449-01			SPONGE COVER HDD
	219	X-4626-734-1		&	COVER MEMORY ASSY
	220	4-682-977-01			INSULATOR MEMORY
	221	4-681-328-01			ESCUTCHEON LEFT
	222	1-862-478-11			FPC (MEMORY STICK)
	B1	4-216-272-01			SCREW (M2), +
	B2	4-641-726-12			SCREW (M2), SPECIAL HEAD
	B3	4-672-834-31		&	SCREW, +B EG GRIP
	B4	4-641-726-41			SCREW (M2), SPECIAL HEAD
	B5	4-665-205-01		&	SPECIAL FLAT HEAD (EG GRIP), M2
	B13	4-673-018-02			SCREW SPECIAL HEAD
	B14	4-673-655-01		&	SCREW +B
	B15	4-644-637-01		&	GRIP, M2 EG

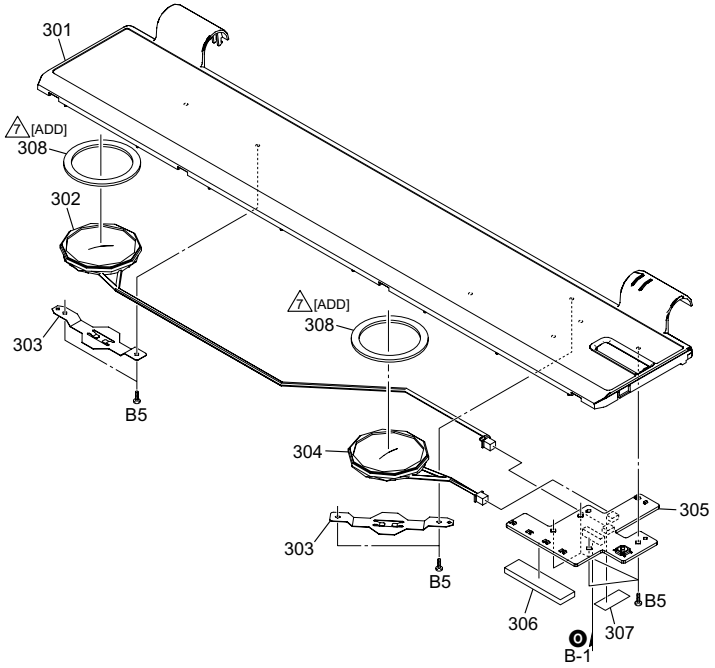
	Ref. No.	Part No.			Description	AM								EU						AO			
						K17	K15	K12P	K13	K14	K15F	K13F	K12FP	K13Q	K115Z	K115S	K115M	K195BP	K115B	K195HP	K66P	K64	K66SP	K64S
	201	4-682-480-01			HI RATE BATTERY STOPPER	●									●									
	202	X-4626-732-1			ESCUTCHEON FRONT ASSY													●	●		●		●	●
		X-4626-733-1			ESCUTCHEON FRONT WL ASSY	●	●	●	●	●	●	●	●	●	●	●	●			●	●		●	
⚠ [COR]	~~206~~	~~A-8068-710-A~~	~~$~~		~~COMPLETE PWB IFX-169(WL)~~	●	●	●	●	●	●	●	●	●	●	●	●			●	●			
⚠ [COR]		~~A-8068-712-A~~	~~$~~		~~COMPLETE PWB IFX-169(NWL)~~													●	●		●			●
	213	A-8117-059-A	$	#	ASSY HDD 40GB (H,40) (S)			●	●	●	●	●	●	●			●	●	●	●	●			●
		A-8117-585-A	$	#	ASSY HDD 60GB (H,40) (S)		●								●	●					●		●	
		A-8117-058-A	$	#	ASSY HDD 80GB (H,40) (S)	●																		
										⚠ [MA]		⚠ [MA]	⚠ [MA]								⚠ [MA]			

- This parts list contains two different types of parts.
  The first type is the parts that are common to all models.
  The other type is the parts that are different depending on each model.

- この部品表は，機種共通の部品と，機種によって使い分けが必要な部品に分かれています。

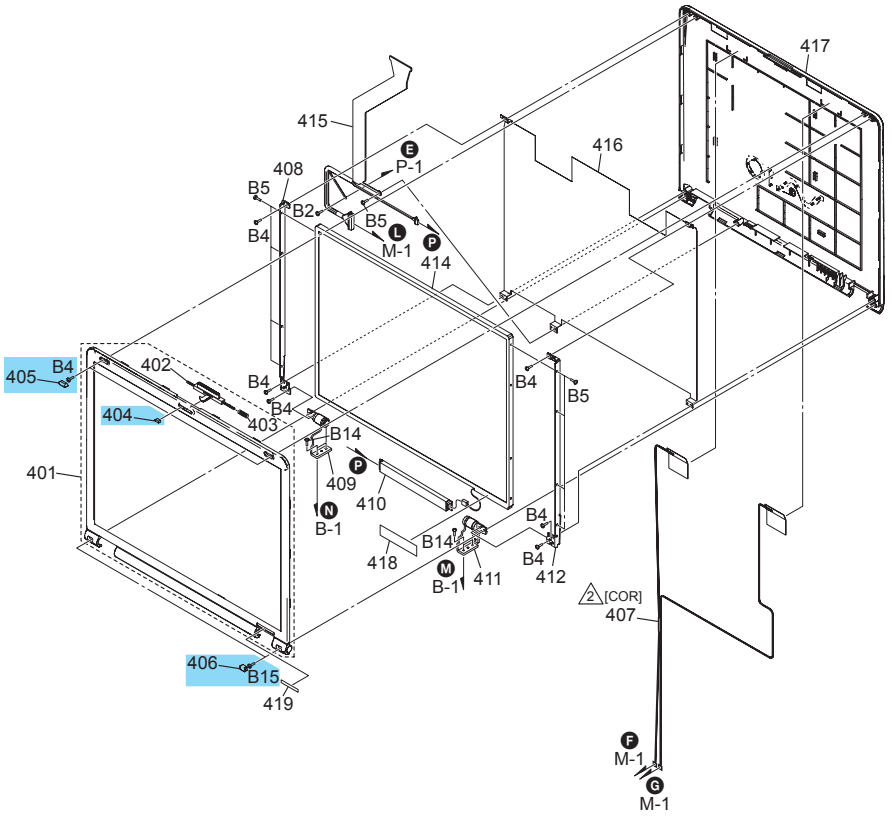
Confidential

H-1. Hood Keyboard



	Ref. No.	Part No.		Description
	301	X-4626-727-1		HOOD KB ASSY
	302	1-825-825-21		SPEAKER (3.2CM)
*	303	4-681-308-01		BRACKET SPK
	304	1-825-825-11		SPEAKER (3.2CM)
	305	A-8068-706-A	$	COMPLETE PWB PWB SWX-168
	306	2-022-447-01		GASKET PW BOARD
	307	-		KAPTON TAPE
[ADD]	308	2-318-491-01		SPEAKER CUSHION
	B5	4-665-205-01		SPECIAL FLAT HEAD (EG GRIP), M2

L-1. LCD 15-inch XGA (High Brightness)
– Made by AUO –



Ref. No.	Part No.		Description
401	X-4626-729-1		BEZEL DISPLAY ASSY
402	4-681-309-01		BUTTON LATCH LCD
403	4-681-352-01		SPRING LATCH LCD
404	4-681-353-01	&	CUSHION LATCH
405	4-681-354-01	&	CUSHION LCD
406	4-681-355-01	&	CUSHION HINGE
* 408	4-681-348-01		BRACKET LCD SPWG L
409	4-681-356-01		HINGE L
5 [DEL] 410	~~1-476-317-21~~		~~INVERTER UNIT~~
411	4-681-357-01		HINGE R
* 412	4-681-347-01		BRACKET LCD SPWG R
415	1-962-630-11		HARNESS, LCD (15XGA)
416	4-681-351-01		LCD SHIELDING
417	X-4626-728-1		HOUSING DISPLAY ASSY
418	-		KAPTON TAPE
B2	4-641-726-12		SCREW (M2), SPECIAL HEAD
B4	4-641-726-41	<&>	SCREW (M2), SPECIAL HEAD
B5	4-665-205-01		SPECIAL FLAT HEAD (EG GRIP), M2
B14	4-673-655-01		SCREW +B
B15	4-644-637-01	&	GRIP, M2 EG

	Ref. No.	Part No.	Description	AM K17	AM K15	AM K12P	AM K13	AM K14	AM K15F	AM K13F	AM K12FP	AM K13Q	EU K115Z	EU K115S	EU K115M	EU K195BP	EU K115B	EU K195HP	AO K66P	AO K64	AO K66SP	AO K64S
	407	1-754-326-11	DUAL BAND ANTENNA (HBLACK)	●	●				●	●	●	●	●	●	●				●		●	
5 [ADD]	●1 410	1-476-317-21	INVERTER UNIT	●					●	●	●	●	●	●					●		●	
5 [ADD]	●1	1-476-316-31	INVERTER UNIT	●					●	●	●	●	●	●	●				●		●	
5 [COR]	~~413~~	~~1-754-326-21~~	~~DUAL BAND ANTENNA (HGRAY)~~		●				●	●	●	●	●	●					●			
	414	A-8119-699-A $ #	ASSY LCD 15XGA (AUO) (S)	●	●				●	●	●	●	●	●	●				●		●	
	419	~~4-682-633-11~~ ←	ID LABEL (U)	●	●																	
		4-682-634-01	ID LABEL L,Q						●													
		4-682-634-11	ID LABEL L,Q							●												
		4-682-634-21	ID LABEL L,Q								●											
		4-682-634-31	ID LABEL L,Q									●										
		4-682-635-01	ID LABEL E										●									
		4-682-635-11	ID LABEL E											●								
		4-682-635-21	ID LABEL E												●							
		4-682-636-01	ID LABEL GVD																●			
		4-682-636-41	ID LABEL GVD																	●		●

4-682-633-01 4 [COR]

4 [COR] 4 [COR] 1 [MA] 1 [MA] 1 [MA] 3 [MA]

- This parts list contains two different types of parts.
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  The other type is the parts that are different depending on each model.

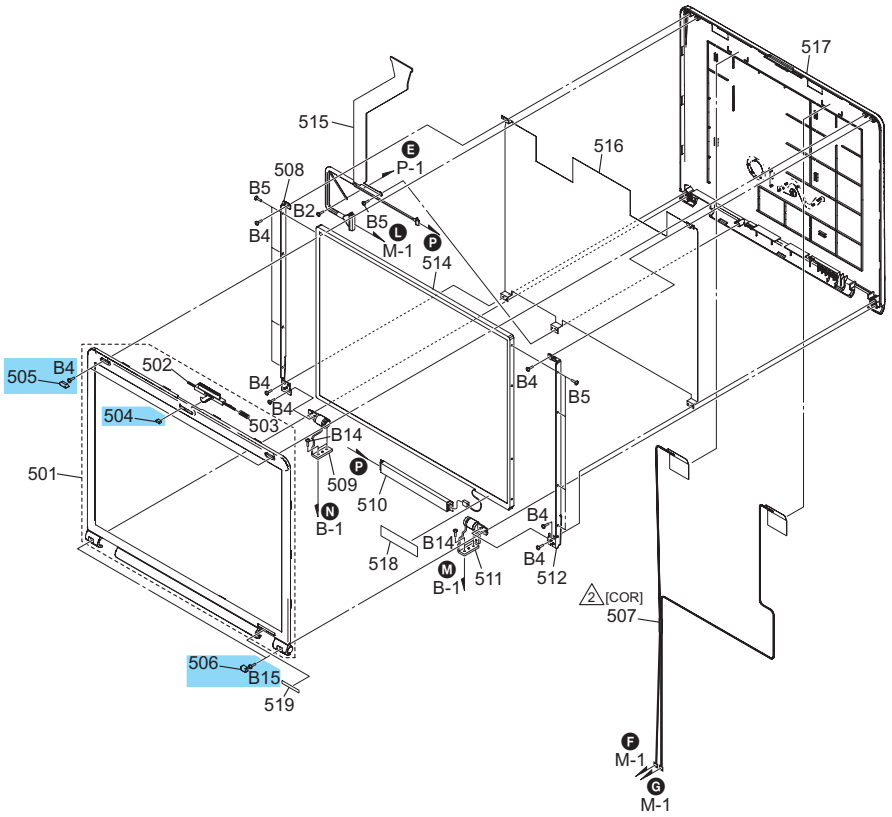
- この部品表は，機種共通の部品と，機種によって使い分けが必要な部品に分かれています。

5 [ADD] ●1 When you exchange the inverter unit, use the same parts as exchange before.
How to recognize is as follows.
Cover is white and board is short: 1-476-317-21
Cover is transparent and board is long: 1-476-316-31

5 [ADD] ●1 INVERTER UNITを交換する際は，交換前と同じ部品を使用して下さい。
見分け方は以下の通りです。
カバーが白色で基板が短い：1-476-317-21
カバーが透明で基板が長い：1-476-316-31

Confidential

L-2. LCD 15-inch XGA (High Brightness)
– Made by QDI –



Ref. No.	Part No.		Description
501	X-4626-729-1		BEZEL DISPLAY ASSY
502	4-681-309-01		BUTTON LATCH LCD
503	4-681-352-01		SPRING LATCH LCD
504	4-681-353-01	&	CUSHION LATCH
505	4-681-354-01	&	CUSHION LCD
506	4-681-355-01	&	CUSHION HINGE
* 508	4-681-348-01		BRACKET LCD SPWG L
509	4-681-356-01		HINGE L
5 [DEL] ~~510~~	~~1-476-317-21~~		~~INVERTER UNIT~~
511	4-681-357-01		HINGE R
* 512	4-681-347-01		BRACKET LCD SPWG R
515	1-962-630-11		HARNESS, LCD (15XGA)
516	4-681-351-01		LCD SHIELDING
517	X-4626-728-1		HOUSING DISPLAY ASSY
518	-		KAPTON TAPE
B2	4-641-726-12		SCREW (M2), SPECIAL HEAD
B4	4-641-726-41	<&>	SCREW (M2), SPECIAL HEAD
B5	4-665-205-01		SPECIAL FLAT HEAD (EG GRIP), M2
B14	4-673-655-01		SCREW +B
B15	4-644-637-01	&	GRIP, M2 EG

	Ref. No.	Part No.	Description	AM								EU						AO			
				K17	K15	K12P	K13	K14	K15F	K13F	K12FP	K13Q	K115Z	K115S	K115M	K195BP	K115B	K195HP	K66P	K64	K66SP	K64S
	507	1-754-326-11	DUAL BAND ANTENNA (HBLACK)			●	●	●														
5 [ADD]	●1 510	1-476-317-21	INVERTER UNIT			●	●	●								●	●					
5 [ADD]	●1	1-476-316-31	INVERTER UNIT			●	●	●								●	●					
2 [COR]	~~513~~	~~1-754-326-21~~	~~DUAL BAND ANTENNA (HGRAY)~~			●	●	●														
	514	A-8119-617-A $ #	ASSY LCD 15XGA(QDI) (S)			●	●	●								●	●					
	519	4-682-633-21	ID LABEL (U)			●																
		4-682-633-31	ID LABEL (U)				●															
		4-682-633-51	ID LABEL (U)					●														
		4-682-635-31	ID LABEL E													●						
		4-682-635-41	ID LABEL E														●					
									1 [MA]		1 [MA]	1 [MA]									5 [MA]	

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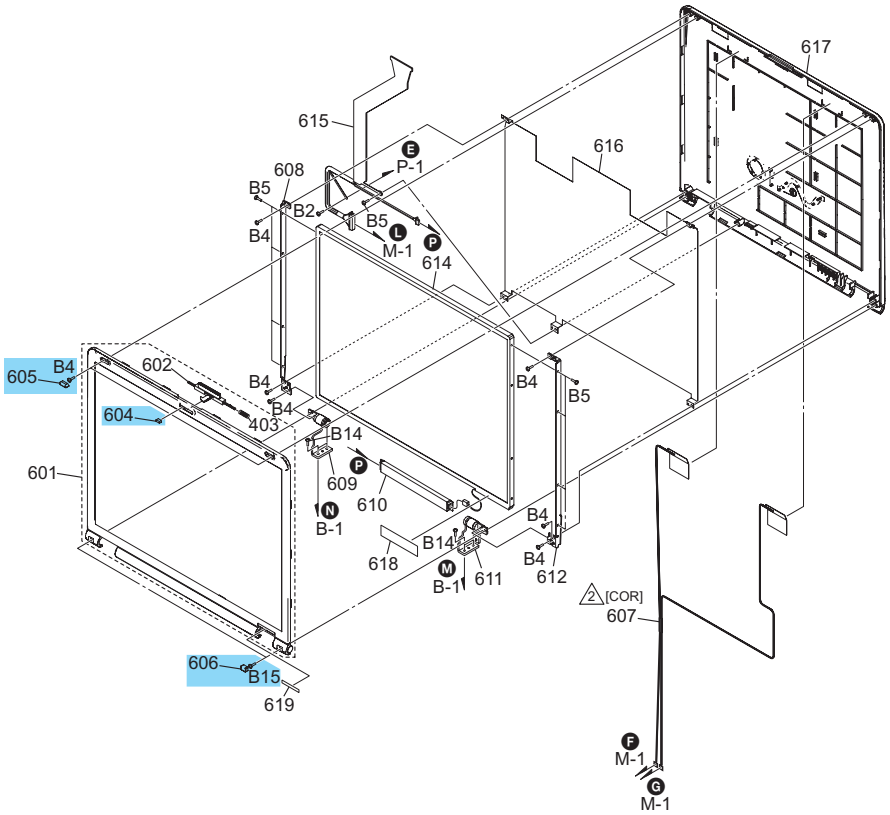
5 [ADD] ●1 When you exchange the inverter unit, use the same parts as exchange before.
How to recognize is as follows.
Cover is white and board is short: 1-476-317-21
Cover is transparent and board is long: 1-476-316-31

5 [ADD] ●1 INVERTER UNITを交換する際は，交換前と同じ部品を使用して下さい。
見分け方は以下の通りです。
カバーが白色で基板が短い：1-476-317-21
カバーが透明で基板が長い：1-476-316-31

Confidential

L-3. LCD 15-inch XGA
– Made by AU –



Ref. No.	Part No.		Description
601	X-4626-729-1		BEZEL DISPLAY ASSY
602	4-681-309-01		BUTTON LATCH LCD
603	4-681-352-01		SPRING LATCH LCD
604	4-681-353-01	&	CUSHION LATCH
605	4-681-354-01	&	CUSHION LCD
606	4-681-355-01	&	CUSHION HINGE
* 608	4-681-348-01		BRACKET LCD SPWG L
609	4-681-356-01		HINGE L
5 [DEL] 610	~~1-476-317-21~~		~~INVERTER UNIT~~
611	4-681-357-01		HINGE R
* 612	4-681-347-01		BRACKET LCD SPWG R
615	1-962-630-11		HARNESS, LCD (15XGA)
616	4-681-351-01		LCD SHIELDING
617	X-4626-728-1		HOUSING DISPLAY ASSY
618	-		KAPTON TAPE
B2	4-641-726-12		SCREW (M2), SPECIAL HEAD
B4	4-641-726-41	<&>	SCREW (M2), SPECIAL HEAD
B5	4-665-205-01		SPECIAL FLAT HEAD (EG GRIP), M2
B14	4-673-655-01		SCREW +B
B15	4-644-637-01	&	GRIP, M2 EG

	Ref. No.	Part No.	Description	AM								EU						AO			
				K17	K15	K12P	K13	K14	K15F	K13F	K12FP	K13Q	K115Z	K115S	K115M	K195BP	K115B	K195HP	K66P	K64	K66SP	K64S
	607	1-754-326-11	DUAL BAND ANTENNA (HBLACK)														●				
5 [ADD]	●1 610	1-476-317-21	INVERTER UNIT														●		●		●
5 [ADD]	●1	1-476-316-31	INVERTER UNIT														●		●		●
2 [COR]	~~613~~	~~1-754-326-21~~	~~DUAL BAND ANTENNA (HGRAY)~~														●				
	614	A-8115-791-A $ #	ASSY LCD 15XGA (AU) (S)														●		●		●
	619	4-682-635-51	ID LABEL E														●				
		4-682-636-11	ID LABEL GVD																●		
		4-682-636-51	ID LABEL GVD																		●
									2 [MA]		2 [MA]	2 [MA]								5 [MA]	

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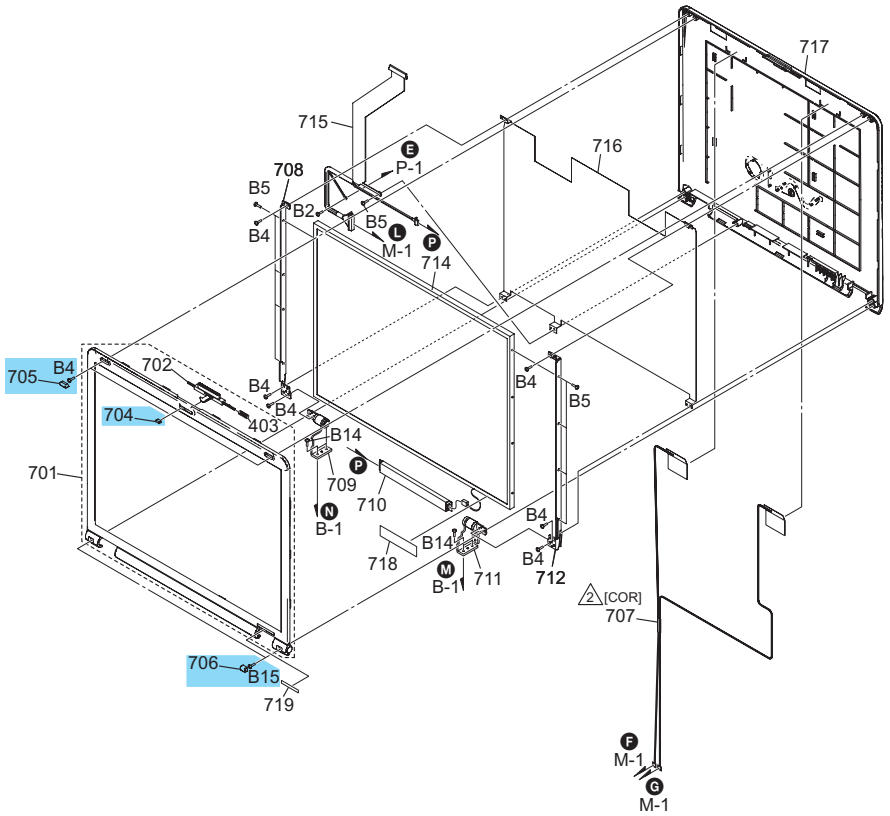
5 [ADD] ●1 When you exchange the inverter unit, use the same parts as exchange before.
How to recognize is as follows.
Cover is white and board is short: 1-476-317-21
Cover is transparent and board is long: 1-476-316-31

5 [ADD] ●1 INVERTER UNITを交換する際は，交換前と同じ部品を使用して下さい。
見分け方は以下の通りです。
カバーが白色で基板が短い：1-476-317-21
カバーが透明で基板が長い：1-476-316-31

L-4. LCD 15-inch XGA (High Brightness)
– Made by SH –



Ref. No.	Part No.		Description
701	X-4626-729-1		BEZEL DISPLAY ASSY
702	4-681-309-01		BUTTON LATCH LCD
703	4-681-352-01		SPRING LATCH LCD
704	4-681-353-01	&	CUSHION LATCH
705	4-681-354-01	&	CUSHION LCD
706	4-681-355-01	&	CUSHION HINGE
* 708	4-681-350-01		BRACKET LCD SSSP L
709	4-681-356-01		HINGE L
5 [DEL] 710	~~1-476-317-21~~		~~INVERTER UNIT~~
711	4-681-357-01		HINGE R
* 712	4-681-349-01		BRACKET LCD SSSP R
715	1-962-774-11		LCD HARNESS (SSSP)
716	4-681-351-01		LCD SHIELDING
717	X-4626-728-1		HOUSING DISPLAY ASSY
718	-		KAPTON TAPE
B2	4-641-726-12		SCREW (M2), SPECIAL HEAD
B4	4-641-726-41	<&>	SCREW (M2), SPECIAL HEAD
B5	4-665-205-01		SPECIAL FLAT HEAD (EG GRIP), M2
B14	4-673-655-01		SCREW +B
B15	4-644-637-01	&	GRIP, M2 EG

	Ref. No.	Part No.	Description	AM K17	AM K15	AM K12P	AM K13	AM K14	AM K15F	AM K13F	AM K12FP	AM K13Q	EU K115Z	EU K115S	EU K115M	EU K195BP	EU K115B	EU K195HP	AO K66P	AO K64	AO K66SP	AO K64S
	707	1-754-326-11	DUAL BAND ANTENNA (HBLACK)	●	●																	
5 [ADD]	●1 710	1-476-317-21	INVERTER UNIT		●																	
5 [ADD]	●1	1-476-316-31	INVERTER UNIT		●																	
2 [COR]	~~713~~	~~1-754-326-21~~	~~DUAL BAND ANTENNA (HGRAY)~~	●																		
	714	A-8115-790-A $ #	ASSY LCD 15XGA (SH) (S)	●	●																	
	719	~~4-682-633-01~~	ID LABEL (U)	●	●																	
		4-682-633-11 4 [COR]		4 [COR]	4 [COR]			1 [MA]			1 [MA]	1 [MA]									3 [MA]	

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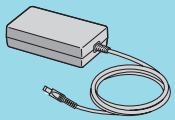
5 [ADD] ●1 When you exchange the inverter unit, use the same parts as exchange before.
How to recognize is as follows.
Cover is white and board is short: 1-476-317-21
Cover is transparent and board is long: 1-476-316-31

5 [ADD] ●1 INVERTER UNITを交換する際は，交換前と同じ部品を使用して下さい。
見分け方は以下の通りです。
カバーが白色で基板が短い：1-476-317-21
カバーが透明で基板が長い：1-476-316-31

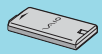
Confidential

A-1. Accessories

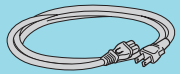
1001
AC Adaptor



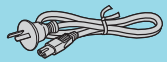
1002
Battery



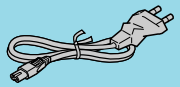
1003
Power Cord



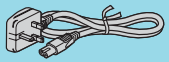
1004
Power Cord



1005
Power Cord



1006
AC Power Cord



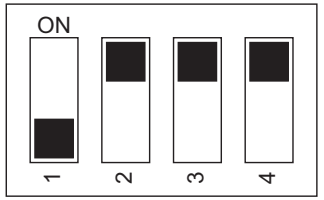
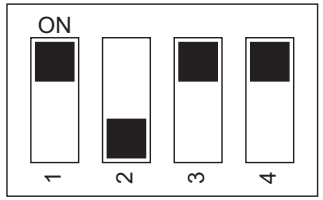
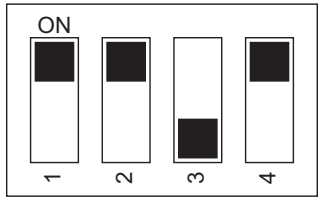
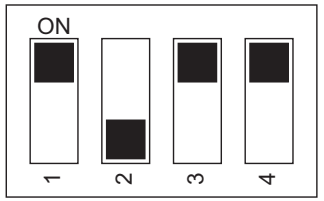
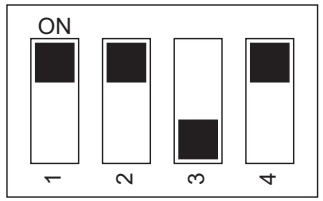
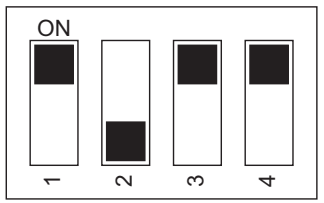
	Ref. No.	Part No.			Description	AM K17	AM K15	AM K12P	AM K13	AM K14	AM K15F	AM K13F	AM K12FP	AM K13Q	EU K115Z	EU K115S	EU K115M	EU K195BP	EU K115B	EU K195HP	AO K66P	AO K64	AO K66SP	AO K64S
!	1001	1-478-390-61	$	&	ADAPTOR, AC	●									●									
		1-478-037-32	$	&	ADAPTOR, AC		●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●
!	1002	A-8120-052-A	$	&	BP-2NY (U) ASSY (S)	●																		
		A-8112-427-A	$	&	BP2NX SNT (U) ASSY (S)		●	●	●	●														
		1-756-269-42	$	&	BATTERY PACK, LITHIUM ION						●	●	●	●		●	●	●	●	●	●	●	●	●
		A-8120-053-A	$	&	BP2NY (E) ASSY (E)										●									
!	1003	1-757-562-21		&	CORD, POWER	●	●	●	●	●	●	●	●	●										
!	1004	1-555-074-32		&	CORD, POWER																●	●		
!	1005	1-575-131-61		&	CORD, POWER																		●	●
!	1006	1-823-935-51		&	CORD, AC POWER																●	●		
⚠2 [COR]	-	~~4-681-847-01~~		&	~~SPECIFICATION SHEET~~						●	●												
⚠2 [COR]	-	~~4-681-848-01~~		&	~~SPECIFICATION SHEET~~									●										
	-	4-681-837-01		&	QUICK START	●	●	●	●	●														
	-	4-681-849-01		&	QUICK START									●										
	-	4-681-850-01		&	QUICK START						●	●												
	-	4-682-640-01		&	GETTING STARTED										●	●	●	●	●	●				
	-	4-682-641-11		&	(UK,Belgium)...HW SPECS													●	●					
	-	4-682-641-21		&	(German,Swiss)...HW SPECS													●	●					
	-	4-682-641-31		&	(Swiss,French)...HW SPECS													●	●					
	-	4-682-641-41		&	(Italian)...HW SPECS													●	●					
	-	4-682-641-51		&	(UK)...HW SPECS													●	●					
	-	4-682-641-61		&	(Spainsh)...HW SPECS													●	●					
	-	4-682-263-11		&	Instruction Manual (XP)																●	●	●	●
											⚠1 [MA]		⚠1 [MA]	⚠1 [MA]								⚠2 [MA]		

- This parts list contains two different types of parts.
  The first type is the parts that are common to all models.
  The other type is the parts that are different depending on each model.

- この部品表は，機種共通の部品と，機種によって使い分けが必要な部品に分かれています。

DIP Switch

・The DIP switch setting is following table.
・DIPスイッチの設定は下の表をご参照ください。

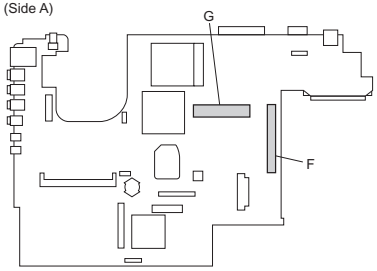
AM	PCG-K15  PCG-K17/K15F/K13F/12FP/K13Q  PCG-K12P/K13/K14 
EU	PCG-K115Z/K115S/K115M/K195HP  PCG-K195BP/K115M 
AO	PCG-K66P/K64/K66SP/K64S 

CHAPTER 5.
OTHER

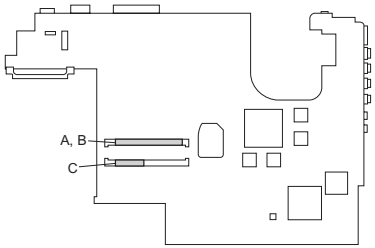
5-1. The Barcode Label

The hatched portion of the barcode is used as the repair data.
バーコードラベルの網掛け部は，修理データとして使用いたします。

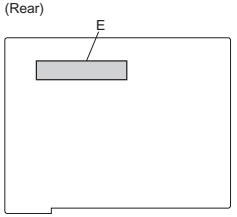
[MBX-96 Board]
(Side A)



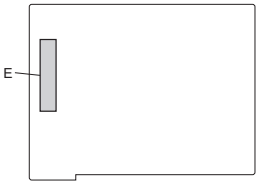
[MBX-96 Board]
(Side B)



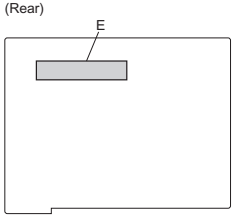
[LCD 15-inch XGA (High Brightness) (AUO)]
(Rear)



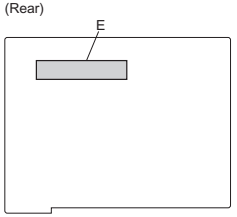
[LCD 15-inch XGA (High Brightness) (QDI)]
(Rear)



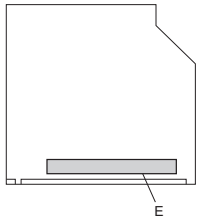
[LCD 15-inch XGA (AU)]
(Rear)



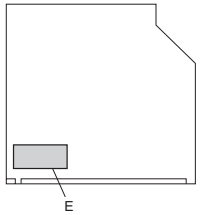
[LCD 15-inch XGA (High Brightness) (SH)]
(Rear)



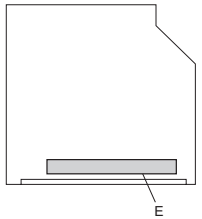
[DVD+-RW Drive (Made by Pa)]
(Top)



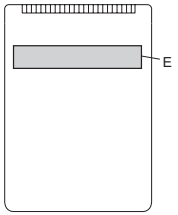
[W-DVD Drive (Made by Pi)]
(Top)



[Combo Drive (Made by QSI)]
(Top)



[HDD]
(Top)



A	: Part No.
B	: Serial No.
C	: Revision No.
D	: Product Code
E	: Maker Barcode
F	: Global User ID (iLink)
G	: Mac Address
▭	: Barcode

Confidential

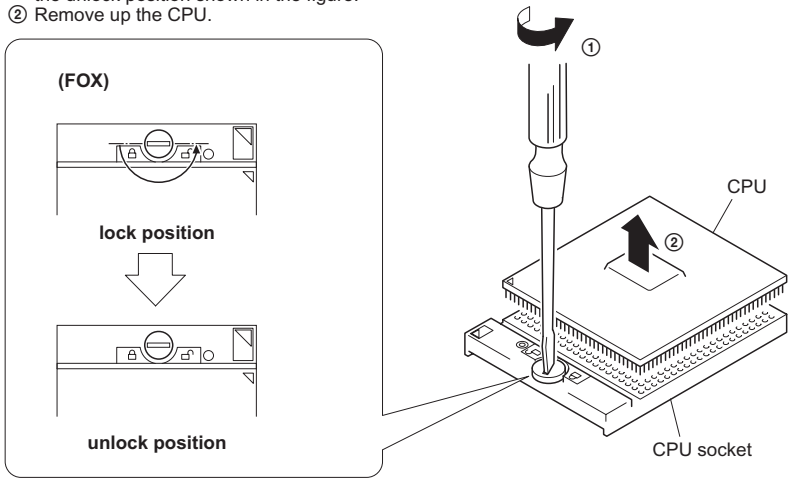
5-2. Replacing the CPU

Note: We have two kinds of CPU for this set, and either of them is used.
Two kinds of CPU have differences in the lock position and the unlock position.

1. Socket configuration 1

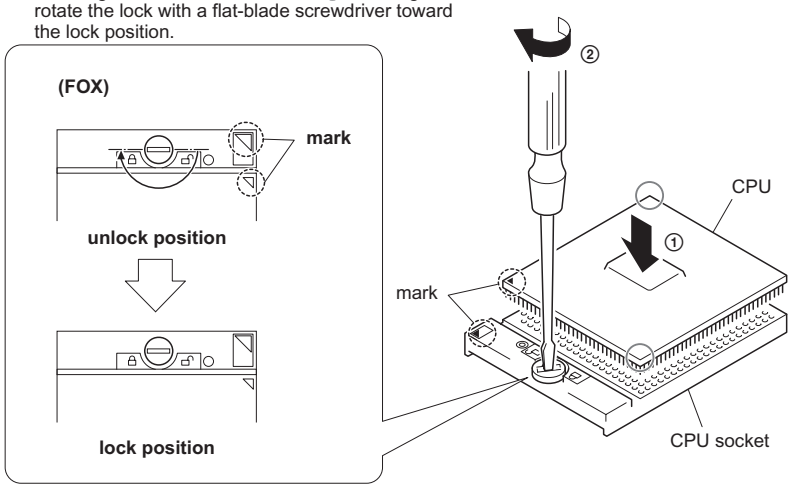
1. How to remove the CPU

① Rotate the lock with a flat-blade screwdriver toward the unlock position shown in the figure.
② Remove up the CPU.



2. How to install the CPU

① Position the mark on the CPU to the mark on the CPU socket and put in all pins to the holes on the CPU socket.
② Pressing two corners marked with ○ in the figure, rotate the lock with a flat-blade screwdriver toward the lock position.

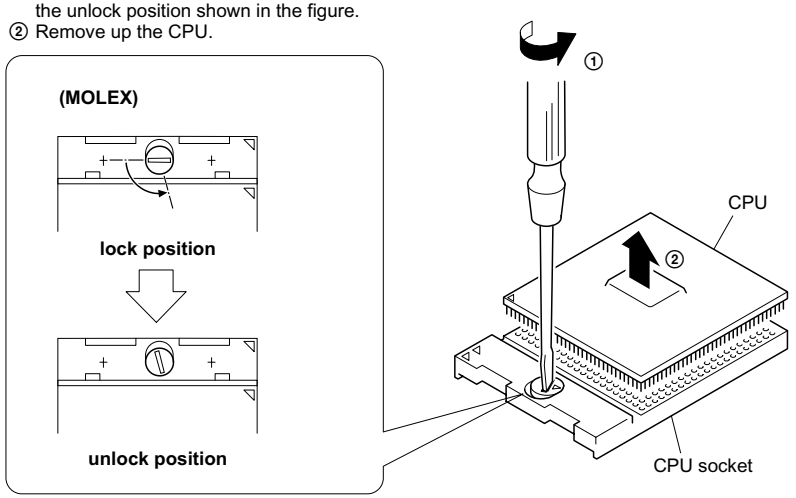


Note: Lock the CPU properly, or operation becomes unstable.

2. Socket configuration 2

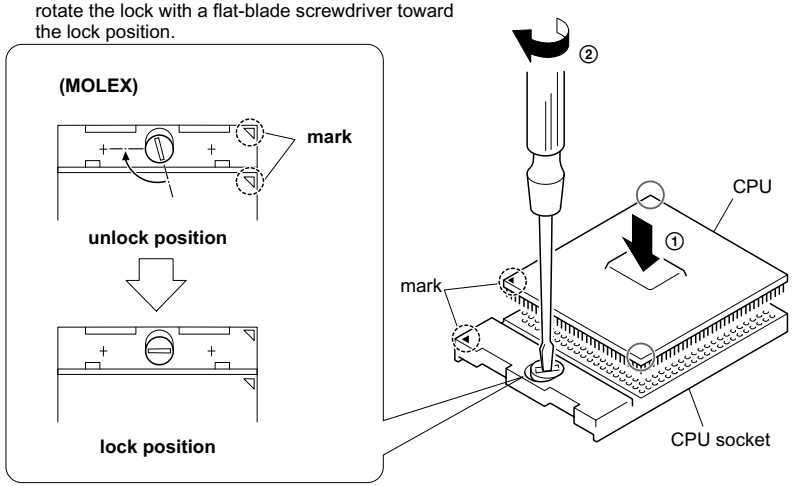
1. How to remove the CPU

① Rotate the lock with a flat-blade screwdriver toward the unlock position shown in the figure.
② Remove up the CPU.



2. How to install the CPU

① Position the mark on the CPU to the mark on the CPU socket and put in all pins to the holes on the CPU socket.
② Pressing two corners marked with ○ in the figure, rotate the lock with a flat-blade screwdriver toward the lock position.



Note: Lock the CPU properly, or operation becomes unstable.

Confidential

List of PCG-K Series (As of June, 2005)

Service Manual Part No.	Model Name			
	J	AM	EU	AO
9-876-365-XX		PCG-K12FP PCG-K12P PCG-K13 PCG-K13F PCG-K13Q PCG-K14 PCG-K15 PCG-K15F PCG-K17	PCG-K115B PCG-K115M PCG-K115S PCG-K115Z PCG-K195BP PCG-K195HP	PCG-K64 PCG-K64S PCG-K66P PCG-K66SP

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English/Japanese
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Revision History

Suffix	Ver.	Date	Contents	QM No.
-01	Ver. 1	2004.03.02	First Edition	
-02	Ver. 2	2004.03.26	△1 Front Page (Model Lineup), Page 1-1, Page 4-1 to 4-4, Page 4-6 to 4-10, Back Cover	N2004_043AK
-03	Ver. 3	2004.04.06	△2 Page 4-3, Page 4-4, Page 4-6 to Page 4-10	N2004_045CK
-04	Ver. 4	2004.04.19	△3 Front Page (Model Lineup), Page 1-1, Page 4-1 to 4-4, Page 4-6 to 4-10, Back Cover	N2004_048AK
-05	Ver. 5	2004.05.11	△4 Page 4-1, Page 4-6, Page 4-9	N2004_052CK
-06	Ver. 6	2004.06.04	△5 Page 4-3, Page 4-6 to Page 4-9	N2004_059CK
-07	Ver. 7	2004.07.15	△6 Page 4-11	N2004_082CK
-08	Ver. 8	2004.10.25	△7 Page 4-3, Page 4-5	N2004_124CK
-09	Ver. 9	2005.06.03	△8 Page 4-3	N2005_020CK

<Remarks>